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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/772,870	02/06/2004	John F. Crichton	10464	5553

7590 09/15/2005

Mark G. Bocchetti
Eastman Kodak Company
343 State Street
Rochester, NY 14650-2201

EXAMINER

GLEITZ, RYAN M

ART UNIT	PAPER NUMBER
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2852

DATE MAILED: 09/15/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/772,870	CRICHTON, JOHN F.	
	Examiner	Art Unit	
	Ryan Gleitz	2852	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) 2,3,8,10,13,14,16,19 and 21 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1,4-7,9,11,12,15,17,18 and 20 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 February 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received. _

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Election/Restrictions

This application contains claims directed to the following patentably distinct species of the claimed invention:

Species I - A rotating magnet assembly as a means for balancing magnetic forces in an electrophotographic development machine, as shown by figure 5.

Species II - A magnetic keeper as a means for balancing magnetic forces in an electrophotographic development machine, as shown by figure 4.

Species III - A real-time controller for controlling an electromagnet as a means for balancing magnetic forces in an electrophotographic development machine, as shown by figure 6.

Applicant is required under 35 U.S.C. 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable. Currently, claims 1, 4, 9, 11, 12, 17, and 18 are generic.

Applicant is advised that a reply to this requirement must include an identification of the species that is elected consonant with this requirement, and a listing of all claims readable thereon, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after

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the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

Response to Election/Restrictions

During a telephone conversation with Donna Suchy on 7 September 2005 a provisional election was made without traverse to prosecute the invention of Species I. Claims 1, 4, 9, 11, 12, 17, and 18 are generic, and claims 5-7, 15, and 20 are directed to the elected species. Affirmation of this election must be made by applicant in replying to this Office action. Claims 2, 3, 8, 10, 13, 14, 16, 19, and 21 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

During an additional telephone conversation with Donna Suchy on 13 September 2005, claim 4 was discussed, and the following was clarified. Applicant intends for claim 4 to be generic to all three species. Claim 4 contains the limitation "electromagnetic structure", which Applicant intends to encompass both an electromagnet, as shown in figure 6, and ferromagnetic structures that are not electrically magnetized, as shown in figure 4 and 5.

Drawings

Figures 1-6 are objected to because the cross hatching used for the housing (12), dielectric support (16), and the toner and carrier particles incorrectly indicates the materials are

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formed of metal. None of these parts are formed of metal. A chart in the MPEP will aid Applicant in matching the above parts with the cross hatching for their respective materials. If no appropriate cross hatching is indicated by the chart, any non-designated cross hatching pattern will be accepted. See MPEP, 608.02, IX.

Figure 1 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g).

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the “same polarity” arrangement of claim 6, the “phase shifted” arrangement of claim 7, and the material to facilitate cleaning of claim 9 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will

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be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

The abstract is objected to for the term “means”, which is considered legal phraseology that should be avoided in the abstract.

Claim Objections

Claim 4 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form.

Applicant intends for the language of claim 4, “electromagnetic structure”, to encompass the ferromagnetic keeper, the magnetic roller, and the electromagnet. This being the case, “electromagnetic structure” does not further limit the limitation “magnetic content” of claim 1.

Claims 17-21 are objected to because “said development electromagnet”, claim 17, line 6, lacks antecedent basis and should be replaced with --said development magnet--.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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Claims 1, 4, 6, 9, 11, 15, 17, 18, and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Snelling et al. (US 5,926,676).

Snelling et al. disclose an electrographic development machine utilizing developer material having toner particles with magnetic content, the development machine including a photoreceptor belt (10), which is a dielectric film, configured for carrying an electrostatic image thereon.

Donor roller (42) is a toner roller disposed upon a first side of the dielectric film member (10), the toner roller (42) having a core (43) and an outer shell (41), the core (43) including a plurality of toner roller magnets shown by each S-N pair in figure 4 to have a respective north and south pole, the toner roller magnets being disposed such that adjacent pairs thereof have poles of opposite polarity disposed proximate the shell, the toner roller (42) providing the dielectric film member (10) with a supply of developer material.

Magnetic field tailoring unit (400) or rotating magnetic roller (500) are equivalent means for balancing the magnetic forces acting on the toner particle with magnetic content.

Regarding claim 4, the means for balancing is an electromagnetic structure.

Regarding claim 6, the electromagnetic structure comprises a rotating magnet assembly (500) disposed on a second side of the dielectric film member (10), the second side opposite the first side, the rotating magnet assembly (500) disposed generally opposite the toner roller (42), the rotating magnet assembly including a plurality of assembly magnets, each of the plurality of assembly magnets having respective poles, the assembly magnets arranged such that the poles thereof are of the same polarity as the poles of the toner roller magnets. See figure 5.

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Regarding claim 9, the means for balancing is encased in a material that will reduce the tendency for carrier beads to deposit on the photoreceptor surface, col. 8, lines 30-32, which reads on facilitating cleaning.

Regarding claims 11 and 15, the means for balancing discussed above also reads on a method of counteracting development magnetic forces acting upon a toner particle having magnetic content within an electrographic development machine including creating a balancing magnetic force that interacts with the development magnetic force.

Regarding claims 17 and 20, the means for balancing also reads on a step of altering a magnetic field induced by the development magnet with a field altering structure disposed on a side of the dielectric member opposite the development electromagnet.

Regarding claim 18, the developer includes magnetic toner. Col. 8, lines 43.

Claims 1, 4, 5, 11, 12, 15, 17, 18 and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Kushima et al. (US 3,631,838).

Kushima et al. disclose an electrographic development machine including a dielectric film member (1), a toner roller (13) disposed upon a first side of the dielectric film member, the toner roller having a core (11) and an outer shell (15), the core including a plurality of toner roller magnets, each of the toner roller magnets having a respective north and south pole, the toner roller magnets being disposed such that adjacent pairs thereof have poles of opposite polarity disposed proximate the shell. See figure 5.

A second magnetic roller, as shown in figure 8 and also numbered 13, reads on a means for balancing the magnetic forces acting on the toner particle with magnetic content.

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Regarding claim 4, the means for balancing comprises an electromagnetic structure.

Regarding claim 5, the electromagnetic structure comprises a rotating magnet assembly disposed on a second side of the dielectric film member (1), and the assembly magnets (11) are arranged such that the poles thereof are opposite in polarity to corresponding and opposing the poles of the toner roller magnets. See figure 7.

Regarding claims 11, 15, 17, 18 and 20, the machine above also reads on a method of counteracting development magnetic forces including creating a balancing magnetic force that interacts with the development magnetic force.

Regarding claim 12, because the toner roller (13) and means for balancing (13) are formed of the same type of roller, the balancing force being approximately equal to the development magnetic force.

Claims 1, 4, 5-7, 11, 15, 17, 18, and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Kamiya (JP 6-1281269).

Kamiya discloses an electrographic development machine including a dielectric film member (1) configured for carrying an electrostatic image thereon; a toner roller (3, 4) disposed upon a first side of the dielectric film member (1), the toner (3, 4) roller having a core (4) and an outer shell (3), the core including a plurality of toner roller magnets, each of the toner roller magnets having a respective north and south pole, the toner roller magnets being disposed such that adjacent pairs thereof have poles of opposite polarity disposed proximate the shell. See figure 1.

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Magnetic roller (6) is a means for balancing the magnetic forces acting on the toner particle with magnetic content.

Regarding claim 4, the means for balancing (6) has an electromagnetic structure.

Regarding claim 6, the electromagnetic structure is a rotating magnet assembly (6) disposed on a second side of the dielectric film member (1), the second side opposite the first side, the rotating magnet assembly (6) disposed generally opposite the toner roller (3, 4), the rotating magnet assembly (6) including a plurality of assembly magnets, each of the plurality of assembly magnets having respective poles, the assembly magnets arranged such that the poles thereof are phase shifted with respect to the poles of the toner roller magnets. The phase shift can be seen in figure 2.

Regarding claims 5 and 7, while the assembly magnets (6) alternate with the toner roll magnets (3), each of the assembly magnets (6), for example S' in figure 2, also is opposed to a correspond magnet of both the same polarity S and a magnet of the opposite polarity N of the toner roll magnets (3).

Regarding claims 11, 15, 17, 18, and 20, the electrographic developing machine also reads on a method of counteracting development magnetic forces acting upon a toner particle having magnetic content within an electrographic development machine.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

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A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1, 4, 6, 11, 17, 18, and 20 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1 and 3 of copending Application No. 10 /457959. Although the conflicting claims are not identical, they are not patentably distinct from each other because it would have been obvious to one of ordinary skill in the art that a photographic element is a dielectric film member and the whole magnetic field of two opposing magnetic rollers is a means for balancing magnetic forces having an electromagnetic structure.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Other Prior Art

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Kroll (US 4,357,103) disclose an electrographic apparatus having a means for balancing magnetic forces as a magnetic roller. See fig. 4.

Contact Information

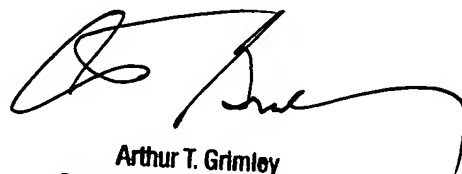
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ryan Gleitz whose telephone number is (571) 272-2134. The examiner can normally be reached on Monday-Friday between 9:00AM and 6:00PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Arthur Grimley can be reached on (571) 272-2136. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


rg



Arthur T. Grimley
Supervisory Patent Examiner
Technology Center 2800